

Title (en)
Semiconductor laser device and method of manufacturing the same

Title (de)
Halbleiterlaservorrichtung und Herstellungsverfahren

Title (fr)
Dispositif laser à semiconducteur et méthode de fabrication

Publication
EP 1087480 B1 20061115 (EN)

Application
EP 00308345 A 20000922

Priority
• JP 27243699 A 19990927
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Abstract (en)
[origin: EP1087480A2] A semiconductor laser device is characterized in that an angle θ of inclination formed by the side surfaces of a ridge portion and a lower part of the ridge portion is at least 70 DEG and not more than 117 DEG , a p-type cladding layer is made of AlX1Ga1-X1As, a first current blocking layer is made of AlX2Ga1-X2As, the distance between an emission layer and the first current blocking layer satisfies the relation of $t \leq 0.275/(1 - (X2 - X1))$ assuming that t represents the distance, and a lower width W of the ridge portion is at least 2 μ m and not more than 5 μ m. <IMAGE>

IPC 8 full level
H01S 5/20 (2006.01); **H01S 5/223** (2006.01); **H01S 5/22** (2006.01)

CPC (source: EP KR US)
H01S 5/20 (2013.01 - KR); **H01S 5/2231** (2013.01 - EP US); **H01S 5/2205** (2013.01 - EP US); **H01S 5/221** (2013.01 - EP US); **H01S 5/222** (2013.01 - EP US); **H01S 5/2227** (2013.01 - EP US); **H01S 2301/18** (2013.01 - EP US)

Cited by
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DE FR GB NL

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EP 1087480 A2 20010328; **EP 1087480 A3 20031008**; **EP 1087480 B1 20061115**; CN 1290055 A 20010404; DE 60031819 D1 20061228; DE 60031819 T2 20070913; KR 100798170 B1 20080124; KR 20010030489 A 20010416; US 6891872 B1 20050510

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